

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
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Patent Department

PCT

WRITTEN OPINION

(PCT Rule 66)

*Due
Nov. 16*

Date of Mailing
(day/month/year)

16 SEP 2004

Applicant's or agent's file reference

PCT 10100000

REPLY DUE

within 2 months/days from
the above date of mailing

International application No.

PCT/US02/41546

International filing date (day/month/year)

27 December 2002 (27.12.2002)

Priority date (day/month/year)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): G06F 9/445 and US Cl.: 717/174

Applicant

UNISYS CORPORATION

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 27 April 2005 (27.04.2005)

Name and mailing address of the IPEA/US

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Form PCT/IPEA/408 (cover sheet)(July 1998)

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WRITTEN OPINION

International application No.

PCT/US02/41546

I. Basis of the opinion

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages 1-18, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☒ the claims:
 pages 19-21, as originally filed
 pages NONE, as amended (together with any statement) under Article 19
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☒ the drawings:
 pages 1-7, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages NONE, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

WRITTEN OPINION

International application No.
PCT/US02/41546

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>6,8,9,15-20</u>	YES
	Claims <u>1-5,7,10-14,21,22</u>	NO
Inventive Step (IS)	Claims <u>6,8,9,15-20</u>	YES
	Claims <u>1-5,7,10-14,21,22</u>	NO
Industrial Applicability (IA)	Claims <u>NONE</u>	YES
	Claims <u>1-22</u>	NO

2. CITATIONS AND EXPLANATIONS

Please See Continuation Sheet

Claims 1-22 lack industrial applicability as defined by PCT Article 33(4). For failing to be recorded on a computer readable medium and execute on a computer.

Claims 6,8,9,15 - 20 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest The details of the optimization algorithm of the claimed invention which is the heart of the invention.

----- NEW CITATIONS -----

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended..37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

V. 2. Citations and Explanations:

Claims 1- 5, 7,10-14, 21-22 novelty under PCT Article 33(2) as being anticipated by USPN #6,421,778 Wood et al. (Claim 19 being dependent on claim 9).

1. A method of predicting a quantity of a resource required for the deployment of a software application on a computing system, comprising the steps of providing historical resource utilisation data for deployment of software applications on computing systems, providing a value for a parameter of the computing system relevant to resource utilisation, providing a value for a parameter of the software application relevant to resource utilisation, and utilising the historical resource utilisation data and parameter values to predict the quantity of the resource required for deployment of the software application.

Examiner's Response

Wood see Abstract and Figures 2, 3 and 5. Wood calculates modular application independent program for scalable program with parameter values. Wood sets default values (col 6, lines 50-60) and recalculates (col 6, lines 60-70).

2. A method in accordance with claim 1, wherein the historical resource utilisation data includes parameter values of the computing systems and parameter values of the software applications historically deployed.

Examiner's Response

Wood Abstract uses parameters and stores values as per figure 3.

3. A method in accordance with claim 2, wherein the historical resource utilisation data includes statistics, the statistics being values of the quantities of resources used in the historical deployment.

Examiner's Response

Wood Abstract ability to make scaleable as per claim 1.

4. A method in accordance with claim 3, wherein the historical resource utilisation data includes at least two parameter/statistic pairs for historical deployments.

Examiner's Response

Wood Abstract parameters passed to functions as per figure 2.

5. A method in accordance with claim 3, wherein the relationship between the parameter and statistic pairs is derived by applying a statistical model to the parameter/statistic pairs.

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Examiner's Response

Figures 2 and 3 calculation of settings.

7. A method in accordance with claim 5, wherein the relationship between the statistic and the parameter or n parameters is determined by assuming that the relationship between the parameter/statistic pairs takes the form of a straight line.

Examiner's Response

Calculation of baseline (linear) Figure 3.

10. A computing system arranged to facilitate the prediction of a statistic for use in the prediction of resources required for the deployment of a software application, comprising, a database arranged to provide historical resource utilisation data for deployment of software applications on computing systems, means for providing a value for a parameter of the computing system relevant to resource utilisation, and a value for a parameter of the software application relevant to resource utilisation, and computation means arranged to utilise the historical resource utilisation data and parameter values to predict the quantity of the resource required for deployment of the software application.

Examiner's Response

As per claim 1

11. A system in accordance with claim 10, wherein the historical resource utilisation data includes parameter values of the computing systems and parameter values of the software applications historically deployed.

Examiner's Response

As per claim 2.

12. A system in accordance with claim 11, wherein the historical resource utilisation data includes statistics, the statistics being values of the quantities of resources used in the historical deployment.

Examiner's Response

As per claim 3.

13. A system in accordance with claim 12, wherein the historical resource utilisation data includes at least two parameter/statistic pairs for historical deployments.

Examiner's Response

As per claim 3.

14. A system in accordance with claim 13, wherein the relationship between the parameter and statistic pairs is derived by applying a statistical model to the parameter/statistic pairs.

Examiner's Response

As per claim 5.

21. A method for building a model for use in the prediction of resources required for the deployment of a software application, the method comprising the steps of collecting historical resource utilisation data for deployment of software applications on computing systems, and storing the historical resource usage data.

Examiner's Response

As per claim 1.

22. A model comprising historical resource utilization data for deployment of software applications on computing systems, the data being stored in a database.

Examiner's Response

Figure 3 store historic values in Table Data store and Optimal Settings in data store as well as Temporary Data Store use. Also see figure 6a, 6b, 6c, 6d, 6e and 7b.

Claims 1- 22 novelty under PCT Article 33(2) as a lack of unity for failing to be on a computer readable medium and executing on a computer.

Claims 6,8,9,15-20 have a positive statement over wood for disclosing the relationship and definitions of the calculation parameters of the equation used as the basis of the invention.

----- NEW CITATIONS -----